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EXAMINER	
VUU, HENRY	

ART UNIT	PAPER NUMBER
2179	

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/648,625	AITA ET AL.	
	Examiner	Art Unit	
	Henry Vuu	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *8/25/2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

Non-initialed and/or non-dated alterations have been made to the oath or declaration. See 37 CFR 1.52(c). Note alterations to first joint inventor, AITA.

Claim Objections

Claim 12 is objected to because of the following informalities: Claim 12 recites "CIT/EMS" which should be spelled out. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 3, and 5 – 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Dev et al. (Patent No. 5,559,955).

As to independent claim 1, Dev et al. teaches:

A method for provisioning a circuit (see e.g., col. 5, lines 29 – 31; provisioning a circuit board corresponds to Fig. 8A representing circuit boards, printed circuit board racks, bridges, routers, hubs, and cables) via a plurality of network elements (see e.g., Fig. 8A and col. 5, lines 29 – 31; i.e., the plurality of network elements include bridges, routers, hubs, and cables) comprising: (a) graphically representing said network elements (see e.g., Fig. 8A and col. 13, lines 21 – 25; i.e., administration network icon 330, engineering network icon 332 and internet icon 334 graphically represent network elements) within a network (see e.g., Fig. 8A and col. 13, lines 17 – 20; i.e., local area networks and subnetworks are graphically represented) as a plurality of network element objects (see e.g., col. 12, lines 21 – 25; i.e., administration network icon 330, engineering network icon 332 and internet icon 334); (b) graphically representing a communications link between two network elements as a bridge object (see e.g., Fig. 8A and col. 13, line 25; i.e., link 336 corresponds to communication links between administration network icon 330, engineering network icon 332 and internet icon 334) disposed between two of said plurality of network element objects (see e.g., Fig. 8a and col. 13, lines 21 – 25; i.e., link 336 communicatively connects administration network icon 330 and an engineering network icon 332); and (c) graphically representing the status of cross-connection links within said network elements (see e.g., Fig. 8A, Fig. 8B, and col. 13, lines 25 – 31; i.e., clicking on engineering icon 332 will display cross connection links within engineering icon 332) as an icon displayed on each of said linked network element objects (see e.g., Fig. 8A); wherein said network element objects and bridge objects may be manipulated to form a graphical representation of a

desired circuit (see e.g., col. 14, lines 1 – 7; i.e., the attribute data within the virtual network machine is modified, wherein the icon appearance also changes in conjunction with the associated modifications).

As to dependent claim 2, Dev et al. teaches:

The method of claim 1, wherein the icon is selected from the group (see e.g., Fig. 8A and col. 14, lines 32 – 37; i.e., the user is able to click on an icon, such as administration network icon 330, engineering network icon 332 and internet icon 334, from the group of icons) consisting of a set of colors (see e.g., Fig. 9 and col. 14, lines 56 – 59; i.e., background area 414 can be represented in different colors, wherein the color is associated with the status of the network), a set of images (see e.g., Fig. 9 and col. 15, lines 1 – 3; clicking on figure 416 will display a pictorial representation of the network device), shapes (see e.g., Fig. 9), symbols (see e.g., Fig. 9 and col. 14, lines 62 – 67; i.e., bar graph 406 and 408 are symbols representing performance information of the network device), objects (see e.g., Fig. 9), and text (see e.g., Fig. 9 and col. 14, line 52; i.e., area 402 is a text area for the device name).

As to dependent claim 3, Dev et al. teaches:

The method of claim 2, wherein the icon (see e.g., fig. 9 and col. 14, lines 51 – 52; i.e., the icon corresponds to the multi function icon 400) is a set of colors (see e.g., col. 14, line 58; a set of colors corresponds to the icon of the network device represented in different colors) and each color of said set corresponds to a particular connection state and cross-connection state within each network element (see e.g., col. 14, lines 56 – 58; i.e., the status of the network device can be represented in different colors, wherein

the status corresponds to the network device's connection state with other network devices).

As to dependent claim 5, Dev et al. teaches:

The method of claim 1, wherein each bridge object (see e.g., Fig. 8B and col. 13, lines 30 – 31; i.e., the bridge object corresponds to interconnection 346, wherein interconnection 346 is used to connect device icons) has at least one communications link (see e.g., Fig. 8B; i.e., multifunction icons 340, 342, and 344 have at least one communications link, wherein the communication link corresponds to interconnection 346), each communications link comprising at least one channel for establishing a communication path between two of the plurality of network elements (see e.g., Fig. 8B; i.e., multifunction icon 344 comprises at least one channel, such as interconnection 346, for establishing a communication path between multifunction icon 342 and a "Hardware/Firmware Development Group" multifunction icon).

As to independent claim 6, Dev et al. teaches:

A graphical user interface (GUI) (user interface 10 – see e.g., col. 3, lines 52 – 54), comprising: a plurality of network element objects (see e.g., Fig. 8A and col. 5, lines 29 – 31; i.e., the plurality of network elements include bridges, routers, hubs, and cables), each network element object representing a respective element within a network (see e.g., Fig. 8A and col. 13, lines 17 – 20; i.e., local area networks and subnetworks are graphically represented) and having a status icon associated with the network element object (see e.g., col. 14, lines 56 – 58; i.e., background area 414 represents the status of the network device); a plurality of bridge objects (interconnections 346 – see e.g., Fig.

8B), representing a respective communications channel within the network (see e.g., col. 13, lines 28 – 31; i.e., interconnections 346 represent communication channels between network devices within a network); wherein: in response to a user selection of a network element object (see e.g., col. 4, lines 30 – 40; i.e., user interface 10 is user configurable, wherein the user is able to add new types of network devices), the network element corresponding to the selected network object is selected for use in a circuit (see e.g., col. 5, lines 29 – 31; provisioning a circuit board corresponds to Fig. 8A representing circuit boards, printed circuit board racks, bridges, routers, hubs, and cables); and its corresponding status icon displays information as to the status of a communications channel between the network element and a second network element (see e.g., Fig. 4B and col. 14, lines 56 – 58; i.e., the status of a network device is represented by different colors depicted by background area 414, wherein each background area 414 corresponds to an individual network device).

As to dependent claim 7, Dev et al. teaches:

The GUI of claim 6, wherein each bridge object (see e.g., Fig. 8B and col. 13, lines 30 – 31; i.e., the bridge object corresponds to interconnection 346, wherein interconnection 346 is used to connect device icons) further comprises at least one communications link object (see e.g., Fig. 8B; i.e., multifunction icons 340, 342, and 344 have at least one communications link, wherein the communication link corresponds to interconnection 346), each communications link object comprising at least one channel object, each channel object representing the communication channel (see e.g., Fig. 8B; i.e., multifunction icon 344 comprises at least one channel, such as interconnection 346, for

establishing a communication path between multifunction icon 342 and a "Hardware/Firmware Development Group" multifunction icon).

As to dependent claim 8, Dev et al. teaches:

The GUI of claim 6, wherein the status icon (see e.g., Fig. 9 and see e.g., col. 14, lines 56 – 58; i.e., background area 414 of network device represents the status of the network device) is selected from the group (see e.g., Fig. 8A and col. 14, lines 32 – 37; i.e., the user is able to click on an icon, such as administration network icon 330, engineering network icon 332 and internet icon 334, from the group of icons) consisting of colors (see e.g., Fig. 9 and col. 14, lines 56 – 59; i.e., background area 414 can be represented in different colors, wherein the color is associated with the status of the network), shapes (see e.g., Fig. 9), symbols (see e.g., Fig. 9 and col. 14, lines 62 – 67; i.e., bar graph 406 and 408 are symbols representing performance information of the network device), objects (see e.g., Fig. 9) and text (see e.g., Fig. 9 and col. 14, line 52; i.e., area 402 is a text area for the device name).

As to dependent claim 9, Dev et al. teaches:

The GUI of claim 8, wherein the colors represent the status of a communications channel (see e.g., col. 14, lines 56 – 57; i.e., background area 414 represents the status of the network device, wherein the background area 414 can be displayed in different colors) between the first network element and the second network element (see e.g., Fig. 8B and col. 10, lines 59 – 67; i.e., background area 414 represents the status of a communication channel, wherein each individual device icon represented in Fig. 8B

comprises a background area 414, which corresponds to the communication channel status of multifunction icon 342 and 340).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dev et al. (Patent No. 5,559,955) in view of Mayo et al. (Patent No. 5,751,965).

As to dependent claim 4, this claim is analyzed with respect to claim 3 as previously discussed above. Dev et al. teaches the icon (see e.g., fig. 9 and col. 14, lines 51 – 52; i.e., the icon corresponds to the multi function icon 400) is a set of colors (see e.g., col. 14, line 58; a set of colors corresponds to the icon of the network device represented in different colors) and each color of the set corresponds to a particular connection state and cross-connection state within each network element (see e.g., col. 14, lines 56 – 58; i.e., the status of the network device can be represented in different colors, wherein the status corresponds to the network device's connection state with other network devices). Dev et al. does not specifically mention a set of colors consists of a list of seven colors. However, in the same field of endeavor, Mayo et al. teaches a

list of seven colors (see e.g., Fig. 6 and col. 4, lines 16 – 18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate an icon is a set of colors, and each color of the set corresponds to a particular connection state and cross-connection state within each network element of Dev et al. with a set of colors consisting of a list of seven colors because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dev et al. (Patent No. 5,559,955) in view of Tonelli et al. (Patent No. 5,831,610).

As to dependent claim 10, this claim is analyzed with respect to claim 9 as previously discussed above. Dev et al. teaches a GUI (user interface 10 – see e.g., col. 3, lines 52 – 54), comprising: a plurality of network element objects (see e.g., Fig. 8A and col. 5, lines 29 – 31; i.e., the plurality of network elements include bridges, routers, hubs, and cables), a first color representing a cross-connection (see e.g., col. 14, lines 56 – 58; i.e., the status of the network device can be represented in different colors, wherein the status corresponds to the network device's connection state with other network devices) locally (see e.g., col. 5, lines 35 – 37; i.e., the topographical model representing the network devices is associated with a local area network) in a management system database (see e.g., col. 3, lines 66 – 67, and col. 4, lines 1 – 2;

i.e., database manager manages storage and retrieval of configuration data, even logs, statistics, history, and current state information), but does not specifically teach the first color represents a cross-connection not yet set to a network element. Tonelli et al. teaches a cross-connection not yet set to a network element (col. 9, lines 10 – 12; i.e., the cross-connection not yet set to a network device corresponds to the user being able to drag a connection to a target device), wherein the connection line comprises a first color first color (see e.g., col. 17, lines 46 – 48; i.e., the user is able to select a Customize Media option 388 to modify the current color of a line media, wherein those skilled in the art will appreciate that the connection line must have a predetermined first color before being connected to a device within the GUI in order for the user to visually identify the connector). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. with the first color representing a cross-connection not yet set to a network element of Tonelli et al. because the user is given an option to select a menu to view or modify the current media line colors and patterns (see e.g., col. 17, lines 46 – 48; i.e., the menu allows the user to select or modify a line color, which further assists the user to visually identify the connection between devices).

As to dependent claim 11, this claim is analyzed with respect to claim 10 as previously discussed above. Dev et al. teaches a GUI (user interface 10 – see e.g., col. 3, lines 52 – 54), a plurality of network element objects (see e.g., Fig. 8A and col. 5,

lines 29 – 31), a first color representing a cross-connection (see e.g., col. 14, lines 56 – 58) locally (see e.g., col. 5, lines 35 – 37) in a management system database (see e.g., col. 3, lines 66 – 67, and col. 4, lines 1 – 2), but does not specifically mention the first color is a predetermined set color. However, in the same field of endeavor, Tonelli et al. teaches the first connection is a predetermined color (i.e., black), wherein the first color can be modified to a desired users choice (see e.g., col. 17, lines 46 – 48; i.e., the user is able to select a Customize Media option 388 to modify the current color of a line media, wherein those skilled in the art will appreciate that the connection line must have a predetermined first color before being connected to a device within the GUI in order for the user to visually identify the connector, such as the color black). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. with the first color representing a cross-connection not yet set to a network element of Tonelli et al. because the user is given an option to select a menu to view or modify the current media line colors and patterns (see e.g., col. 17, lines 46 – 48; i.e., the menu allows the user to select or modify a line color, which further assists the user to visually identify the connection between devices).

Claims 12, 13, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dev et al. (Patent No. 5,559,955) in view of Tonelli et al. (Patent No. 5,831,610), and further in view of Mayo et al. (Patent No. 5,751,965).

As to dependent claim 12, this claim is analyzed with respect to claim 9 as previously discussed above. Dev et al. teaches a GUI (user interface 10 – see e.g., col. 3, lines 52 – 54), a plurality of network element objects (see e.g., Fig. 8A and col. 5, lines 29 – 31), a first color representing a cross-connection (see e.g., col. 14, lines 56 – 58) locally (see e.g., col. 5, lines 35 – 37) in a management system database (see e.g., col. 3, lines 66 – 67, and col. 4, lines 1 – 2). Tonelli et al. teaches a cross-connection not yet set to a network element (col. 9, lines 10 – 12), wherein the connection line comprises a first color first color (see e.g., col. 17, lines 46 – 48). Both Dev et al. and Tornelli et al. do not specifically mention a second color representing an active connection. However, in the same field of endeavor, Mayo et al. teaches a second color representing an active connection (see e.g., Fig. 6 and col. 6, lines 60 – 65; i.e., five condition for connections are depicted as good, bad, unknown, disabled, and unreachable, wherein good represents an active connection). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the second color representing an active connection of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively

understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

As to dependent claim 13, this claim is analyzed with respect to claim 12 as previously discussed above. Both Dev et al. and Tornelli et al. do not specifically mention the second color is green. However, in the same field of endeavor, Mayo et al. teaches a second color is green (see e.g., Fig. 6 and col. 7, lines 36 – 50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the second color representing an active connection of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

As to dependent claim 18, this claim is analyzed with respect to claim 9 as previously discussed above. Both Dev et al. and Tornelli et al. do not specifically mention a fifth color representing an improper disconnect state of the communication channel. Mayo et al. teaches a fifth color (see e.g., Fig. 6) representing an improper disconnect of the communication channel (see e.g., col. 7, lines 20 – 29; i.e., the

improper disconnect of a communication channel corresponds to a situation that would cause a decrease in data flow between two network devices, such as ports being purposely or accidentally disabled). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the fifth color representing an improper disconnect state of the communication channel of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

As to dependent claim 19, this claim is analyzed with respect to claim 18 as previously discussed above. Both Dev et al. and Tornelli et al. do not specifically mention the fifth color is orange. However, in the same field of endeavor, Mayo et al. teaches a fifth color is orange (see e.g., Fig. 6 and col. 7, lines 65 – 67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the fifth color representing an improper disconnect state of

the communication channel of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

Claims 14 – 17, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dev et al. (Patent No. 5,559,955) in view of Tonelli et al. (Patent No. 5,831,610), in view of Mayo et al. (Patent No. 5,751,965), and further in view of Galou et al. (Patent No. 6,957,263).

As to dependent claim 14, this claim is analyzed with respect to claim 9 as previously discussed above. Dev et al. teaches a GUI (user interface 10 – see e.g., col. 3, lines 52 – 54), a plurality of network element objects (see e.g., Fig. 8A and col. 5, lines 29 – 31), a first color representing a cross-connection (see e.g., col. 14, lines 56 – 58) locally (see e.g., col. 5, lines 35 – 37) in a management system database (see e.g., col. 3, lines 66 – 67, and col. 4, lines 1 – 2). Tonelli et al. teaches a cross-connection not yet set to a network element (col. 9, lines 10 – 12), wherein the connection line comprises a first color (see e.g., col. 17, lines 46 – 48). Both Dev et al. and Tornelli et al. do not specifically mention a third color. However, in the same field of endeavor, Mayo et al. teaches a third color (see e.g., Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a

cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the third color of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

Dev et al., Tornelli et al., and Mayo et al. do not specifically mention a pending communication channel. However, in the same field of endeavor, Galou et al teaches a pending communication channel (see e.g., col. 6, lines 9 – 11; i.e., the two different states for a cross-connection in a network system is pending and active). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. as further modified by the third color of Mayo et al. with the pending communication channel of Galou et al. because the pending connection can be set to activate, wherein the system can be configured to check the connection for errors, and report the status to the user with an error report (see e.g., col. 10, lines 56 – 62).

As to dependent claim 15, this claim is analyzed with respect to claim 14 as previously discussed with respect to 15. Dev et al., Tornelli et al., and Galou et al. do not specifically mention the third color is gray. However, in the same field of endeavor,

Mayo et al. teaches a third color being grey (see e.g., Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. as further modified by the pending communication channel of Galou et al. with the third color representing a gray color of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

As to dependent claim 16, this claim is analyzed with respect to claim 9 as previously discussed above. Dev et al. teaches a GUI (user interface 10 – see e.g., col. 3, lines 52 – 54), a plurality of network element objects (see e.g., Fig. 8A and col. 5, lines 29 – 31), a first color representing a cross-connection (see e.g., col. 14, lines 56 – 58) locally (see e.g., col. 5, lines 35 – 37) in a management system database (see e.g., col. 3, lines 66 – 67, and col. 4, lines 1 – 2). Tonelli et al. teaches a cross-connection not yet set to a network element (col. 9, lines 10 – 12), wherein the connection line comprises a first color (see e.g., col. 17, lines 46 – 48). Both Dev et al. and Tornelli et al. do not specifically mention a fourth color. However, in the same field of endeavor, Mayo et al. teaches a fourth color (see e.g., Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

incorporate the GUI; a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the fourth color of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

Dev et al., Tornelli et al., and Mayo et al. do not specifically mention a partial communication channel state. However, in the same field of endeavor, Galou et al teaches a partial communication channel state (see e.g., col. 6, lines 9 – 11; i.e., the two different states for a cross-connection in a network system is partial, pending and active). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. as further modified by the fourth color of Mayo et al. with the partial communication channel state of Galou et al. because the connection can be user activated or deactivated to change the state of the cross connection from a pending or a partial state to an activate state (see e.g., col. 6, lines 56 – 60).

As to dependent claim 17, this claim is analyzed with respect to claim 16 as previously discussed. Dev et al., Tornelli et al., and Galou et al. do not specifically mention the fourth color is red. However, in the same field of endeavor, Mayo et al. teaches a fourth color being red (see e.g., Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. as further modified by the partial communication channel state of Galou et al. with the fourth color representing a red color of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

As to dependent claim 20, this claim is analyzed with respect to claim 9 as previously discussed above. Dev et al. teaches a GUI (user interface 10 – see e.g., col. 3, lines 52 – 54), a plurality of network element objects (see e.g., Fig. 8A and col. 5, lines 29 – 31), a first color representing a cross-connection (see e.g., col. 14, lines 56 – 58) locally (see e.g., col. 5, lines 35 – 37) in a management system database (see e.g., col. 3, lines 66 – 67, and col. 4, lines 1 – 2). Tonelli et al. teaches a cross-connection not yet set to a network element (col. 9, lines 10 – 12), wherein the connection line comprises a first color (see e.g., col. 17, lines 46 – 48). Both Dev et al. and Tornelli et

al. do not specifically mention a sixth color. However, in the same field of endeavor, Mayo et al. teaches a sixth color (see e.g., Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. with the sixth color of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

Dev et al., Tornelli et al., and Mayo et al. do not specifically mention an "intent to delete" state of the communications channel. However, in the same field of endeavor, Galou et al teaches an "intent to delete" state of the communications channel (see e.g., col. 6, lines 59 – 60; i.e., the intent to delete corresponds to delete step 310, wherein any connection can be deleted or detached). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. as further modified by the sixth color of Mayo et al. with the an "intent to delete" state of the communications channel of Galou et al. because the cross connections associated with

the connection will be deleted only from the network elements in the connection's route and not form the connection itself (see e.g., col. 15, lines 21 – 30).

As to dependent claim 21, this claim is analyzed with respect to claim 20 as previously discussed. Dev et al., Tornelli et al., and Galou et al. do not specifically mention the sixth color is magenta. However, in the same field of endeavor, Mayo et al. teaches a fourth color (see e.g., Fig. 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the GUI, a plurality of network element objects, a first color representing a cross-connection, locally in a management system database of Dev et al. as modified by the first color representing a cross-connection not yet set to a network element of Tonelli et al. as further modified by the partial communication channel state of Galou et al. with the sixth color of Mayo et al. because representing a connection line having a color which the user may easily associate with a particular condition will allow the user immediately and intuitively understand the condition of a network without performing further inquiries (see e.g., col. 7, lines 36 – 50).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art Patent No. 7,120,874 can be applicable and pertinent to applicant's disclosure. Prior art disclosed by Shah et al. teaches dragging and dropping

icons onto a form or palette and further connecting the icons with a connector for configuration.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art Patent No. 6,225,999 can be applicable and pertinent to applicant's disclosure. Prior art disclosed by Jain et al. teaches a graphical user interface for network management, wherein the user is able to select network components, wherein the network components are connectable through colored connectors associated with particular network states.

Inquires

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Vuu whose telephone number is (571) 270-1048. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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12/6/2006

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